



TURNER-FAIRBANK HIGHWAY RESEARCH CENTER

[English](#) | [Español](#)
[More Information](#)
[Operations & Intelligent Transportation Systems Research >](#)
[Enabling Technologies | Travel Management > Publications](#)

PUBLICATIONS & ARTICLES

Categories

[General | ATMS | ITS | IV | NDGPS | Rural ITS](#)
[Strategic Work Zone Analysis | Travel Management |](#)
[Weather](#)

General

[Fact Sheet: Office of Operations R&D \(FHWA-HRT-04-120\)](#)
[Roads, Jan/Feb 2003](#)
[Inform Web Site Shares Low-Cost ITS Solutions \(Public](#)
[Roads, Jan/Feb 2003\)](#)
[Innovative Traffic Control Practices in Europe](#)
[\(September/October 1999\)](#)
[by: H. Gene Hawkins Jr., W. Scott Wainwright, and Samuel](#)
[C. Tignor](#)
[In May 1998, 10 U.S. traffic engineers traveled to Europe to](#)
[observe innovative traffic control practices and identify those](#)
[practices that could be implemented in the United States.](#)
[Safety & Operations Electronic Reading Room - 1999](#)
[A compilation of publications that document some of FHWA's](#)
[recent research and accomplishments in highway safety and](#)
[operations.](#)
[Technology for Work and Travel](#)
[\(Public Roads, Spring 1996\)](#)
[by William Zaccagnino](#)
[FHWA is using available technology to ensure a future with a](#)
[high-tech transportation network that meets our](#)
[transportation needs, supports our national defense,](#)
[provides economic growth, and adds to the quality of life in](#)
[the United States well into the 21st century.](#)

Advanced Traffic Management Systems

[ATMS Human Factors Experiments Produce Design](#)
[Guidelines](#)
[\(Public Roads, Spring 1997\)](#)

[Contact Us](#)
[About Us](#)
[Privacy Policy](#)
[Terms of Use](#)
[Site Map](#)
[Feedback](#)
[Help](#)
[English](#)
[Español](#)

by Nazemeh Sobhi and Michael J. Kelly
 The design of concepts, controls, and computer displays for
 Advanced Traffic Management Systems affect operator
 efficiency.

Center for Excellence in Advanced Traffic & Logistics
 Algorithms and Systems (ATLAS)
 (Public Roads, January/February 2001)

by David Gibson, Alan Hansen, and Pitu Mirchandani
 The University of Arizona with the support of FHWA
 established a center of excellence for the research and
 development of algorithms, software, and systems to
 advance the state of the art and the state of the practice in
 traffic management systems and logistics management
 systems.

Intelligent Transportation Systems (ITS)

Atlanta to Showcase ITS Traveler Information
 (Public Roads, Summer 1996)

by David F. Williams
 The Traveler Information Showcase in Atlanta this summer is
 a \$14 million partnership of federal, state, and local agencies
 and the private sector to provide the most complex,
 integrated transportation management and travel information
 system in the United States.

Commercial Vehicle Information Systems and Networks
 (CVISN): The Information Highway Meets the Asphalt Jungle
 (Public Roads, January/February 1999)

by Michael Curtis and Jeff Seibert

Intelligent Transportation Systems in Japan
 (Public Roads, Autumn 1996)

by Hideo Tokuyama
 In Japan, intelligent transportation systems are one of
 several essential elements in creating a global advanced
 information and telecommunications society.

International Cooperation to Prevent Collisions at
 Intersections

(Public Roads, July/August 2001)

ITS and the Environment
 (Public Roads, Spring 1995)

ITS Is Already Paying Dividends
 (Public Roads, September/October 1997)

by Maria Kokianaris
 Many intelligent transportation technologies are already
 improving life for millions of drivers and passengers.

Smart Road, Smart Car: The Automated Highway System
 (Public Roads, Autumn 1996)

by Nita Congress
 The National Automated Highway System Consortium is
 making significant progress toward the development of an
 automated highway system that will combine intelligent
 transportation systems (ITS) technologies to maximize safety
 and efficiency and to reduce congestion and associated

costs.

WestTrack: Putting ITS to Work (Public Roads, July/August 1997)
by Colin Ashmore and Terry M. Mitchell
The WestTrack Driverless Control System, which controls three driverless heavy trucks circling the WestTrack course at 65 km/h, is addressing issues that are very similar to the real-world requirements of an automated highway system.

Intelligent Vehicle Initiative (IVI)

The Customer-Driven Development of Human Factors Design Guidelines (Public Roads, January/February 2000)
by Christopher A. Monk and Joseph Moyer
The Federal Highway Administration (FHWA) undertook a six-year research program focused on issues related to in-vehicle information displays in order to provide design assistance to advanced in-vehicle systems engineers.

Highway Effects on Vehicle Performance (FHWA-RD-00-164, January 2001)

Safe Plowing - Applying Intelligent Vehicle Technology (Public Roads, January/February 2001)
by Robert A. Feris, Shahed Rowshan, and Cathy Frye
The California and Minnesota departments of transportation use the Global Positioning System, a geo-spatial database, radar, and intelligent vehicle technologies to enable snowplow operators to "see" snow-covered roads and obstacles.

Rural ITS

The ARTS Compendium: FHWA's Electronic Rural ITS Project Tracking System (Public Roads, December 1997)
by Galina Belfor, Lee-Jane Chen, Charles Liu, Paul Pisano, and Eileen Singleton
FHWA created the Advanced Rural Transportation System (ARTS) Compendium as a tool to track current technology applications related to rural areas and to help identify areas in need of further research and field testing.

Collaborative Research on Road Weather Observations and Predictions by Universities, State DOTs and National Weather Service Forecast Offices, FHWA-HRT-04-109, September 2004

Strategic Work Zone Analysis

A QuickZone Tailor-Made for Maryland (Focus, March 2001)

QuickZone (Public Roads, July/August 2001)
By Deborah Curtis
QuickZone is software that will estimate traveler delay due to

work zones, and by doing so, it will provide a more complete and realistic view of the total construction costs.

Strategic Workzone Analysis Tools (Public Roads, November/December 2000)
by John Harding

The SWAT program addresses work-zone factors and stresses the importance of accounting for work-zone influences when making transportation-improvement decisions.

Travel Management

Traffic Analysis Toolbox, Volume I: Traffic Analysis Tools Primer, June 2004, FHWA-HRT-04-038

Traffic Analysis Toolbox, Volume II: Decision Support Methodology for Selecting Traffic Analysis Tools, June 2004, FHWA-HRT-04-039

Traffic Analysis Toolbox, Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software, June 2004, FHWA-HRT-04-040

Software that Really Moves (TSIS) (R&T Transporter, August 2001, PDF File - 381 KB)

Slaying in the Loop: The Search for Improved Reliability of Traffic Sensing Systems Through Smart Test Instruments (Public Roads, September/October 1998)
by David Gibson, Milton K. (Pete) Mills, and Doug Rekenhauer Jr.

Traffic Control With a Twist (R&T Transporter, August 2001, PDF File - 381 KB)

Traffic Flow Theory: A State of the Art Report The Revised Monograph

Traffic Flow Theory (Public Roads, January/February 1999)
by Henry Lieu

Weather

Collaborative Research on Road Weather Observations and Predictions by Universities, State DOTs and National Weather Service Forecast Offices, September 2004, FHWA-HRT-04-109

Identifying and Assessing Key Weather-Related Parameters and Their Impacts on Traffic Operations Using Simulation, FHWA-HRT-04-131, September 2004

Road Weather Management Summary FHWA-HRT-04-101

.....

[Operations & Intelligent Transportation Systems Research >](#)
[Enabling Technologies | Travel Management > Publications](#)

[What's New | About FHRC | Our Products | Our Research | Support Services](#)
[Library | Periodicals | Other Resources | Site Map | Search](#)

This page last modified on August 3, 2005

[FHRC Home](#) | [FHWA Home](#) | [Feedback](#)



United States Department of Transportation - Federal Highway Administration